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ABSTRACT

This manual is designed to train local planning team members and school supervisors/administrators to conduct surveys of local opinions regarding career education. These materials, representing a one-day workshop, consist of eight activities. Topics covered in the activities are an overview of the workshop, an introduction to survey research, statements of purpose, issue-related questions, community population and sampling, data collection methods, data processing and interpretation, and the summary report. Each activity contains a statement of purpose, its estimated time, an explanation of its format, and specific implementation suggestions. Nineteen activity handouts are provided. These include a workshop agenda, an outline of a local opinion survey, career education definitions and goal areas, a description of the elements of an operational career education program, examples of purpose statements and steps for drafting them, examples of issue-related questions and topics, procedures for developing general and demographic questions, sampling techniques, and examples of data record and analysis sheets. (Five other career education workshops covering career education concepts and practices, linking agents, program design, program improvement, and school improvement processes are available separately through ERIC--see note.) (MN)

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LOCAL OPINION SURVEYS FOR CAREER EDUCATION

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U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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For two years, the Career Preparation Component of Research for Better Schools, Inc. (RBS) has been working collaboratively with schools, intermediate service agencies and state education departments to plan, implement, and support career education activities in schools in Delaware, New Jersey, and Pennsylvania. The activities suggested in this workshop are based on RBS experience in working with the staff members of these agencies. The author wishes, therefore, to acknowledge the many contributions of these professionals to this work.

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OVERVIEW

The purpose of this one-day workshop is to train local planning team members and school supervisors/administrators to conduct surveys of local opinions regarding career education. It is assumed that the workshop participants represent only one local school district and that before enrolling in the workshop, these participants have decided to undertake a survey in their local school district.

OBJECTIVES

Upon completing this workshop, participants will have:

- discussed what a local opinion survey is and why it is needed
- discussed and written a statement of purpose for conducting a local opinion survey in career education
- discussed and written examples of issue-related questions appropriate for a local opinion survey in career education
- reviewed the different types of probability sampling techniques, discussed the advantages and disadvantages of each, and determined the technique(s) they prefer to use in their local opinion survey
- discussed the advantages and disadvantages of three data collection methods and reviewed procedures for carrying out these methods
- examined simple methods of processing and interpreting data
- discussed the contents of the four major sections of a summary report (i.e., introduction, procedures, results and summary).

DIRECTIONS TO THE TRAINER

1. The following pages describe activities which can be used to present the topics included in this workshop. The trainers may present these activities exactly as decribed or they may alter, delete, add or change the order of activities according to the needs of the participants.

2. Handouts which accompany this workshop are listed in the table of contents and are printed on white paper to facilitate copying. Plan to have one copy of each needed handout for each participant available at the start of the workshop.

3. The time needed for this workshop is approximately seven hours. Estimated times needed to complete an activity are included in each activity description. The activities may be presented during a one-day workshop or they may be parcelled out into several workshops.

4. Both italics and roman type will be used in activities in this workshop outline. The words in italics are addressed to you, the trainer, and the words in roman type give information you may want to pass on to your audience.

5. A diagram entitled "Sequence of Activities" is found at the beginning of each new activity. The purpose of this diagram is to signal the start of a new activity, marked with the notation "YOU ARE HERE."

6. This workshop description is not intended to be the sole basis for your qualification to lead the workshop. Trainer orientation and technical assistance from Research for Better Schools, Inc. are recommended.

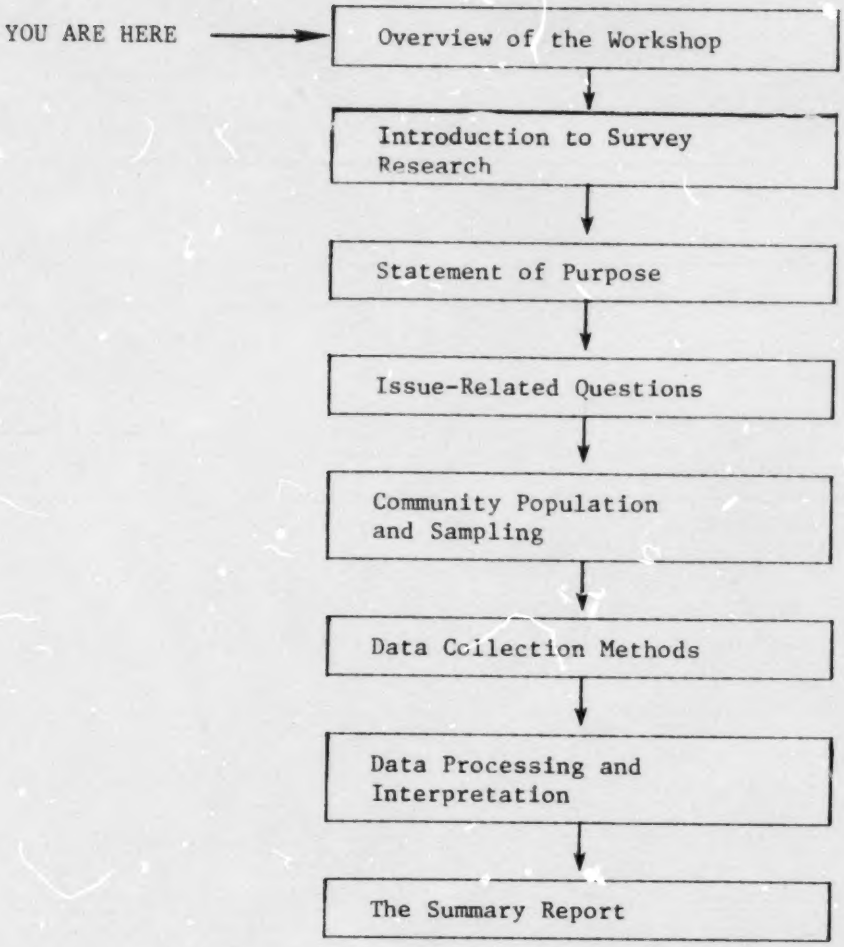
7. Before attempting presentation of any activity, you should become familiar with this entire document.

8. During some workshop activities, participants are encouraged to reach a consensus of opinion. Trainers should attempt to facilitate this process, but also should be willing to accept minority reports.

9. Throughout this workshop, participants are expected to discuss issues of interest. If the trainers believe that the number of participants is too large for an effective discussion, they may opt to divide up the group into two or more small groups.

10. For the purpose of this workshop, a school community will be defined as all individuals associated with a school district including, for example, students, teachers, administrators, parents, business people and community residents.

SEQUENCE OF ACTIVITIES



ACTIVITY

Overview of the Workshop

The purpose of this activity is to provide a brief overview of the current workshop.

The estimated time for conducting this activity is 5 minutes.

1. *Distribute the handout, "Agenda--Local Opinion Survey for Career Education."*

2. *Explain to participants that this handout outlines the topics to be covered in the current workshop and the order in which these topics will be presented.*

ACTIVITY HANDOUT

Agenda--Local Opinion Survey for Career Education

I. Overview of the Workshop

II. Introduction to Survey Research

III. Statement of Purpose

IV. Issue-Related Questions

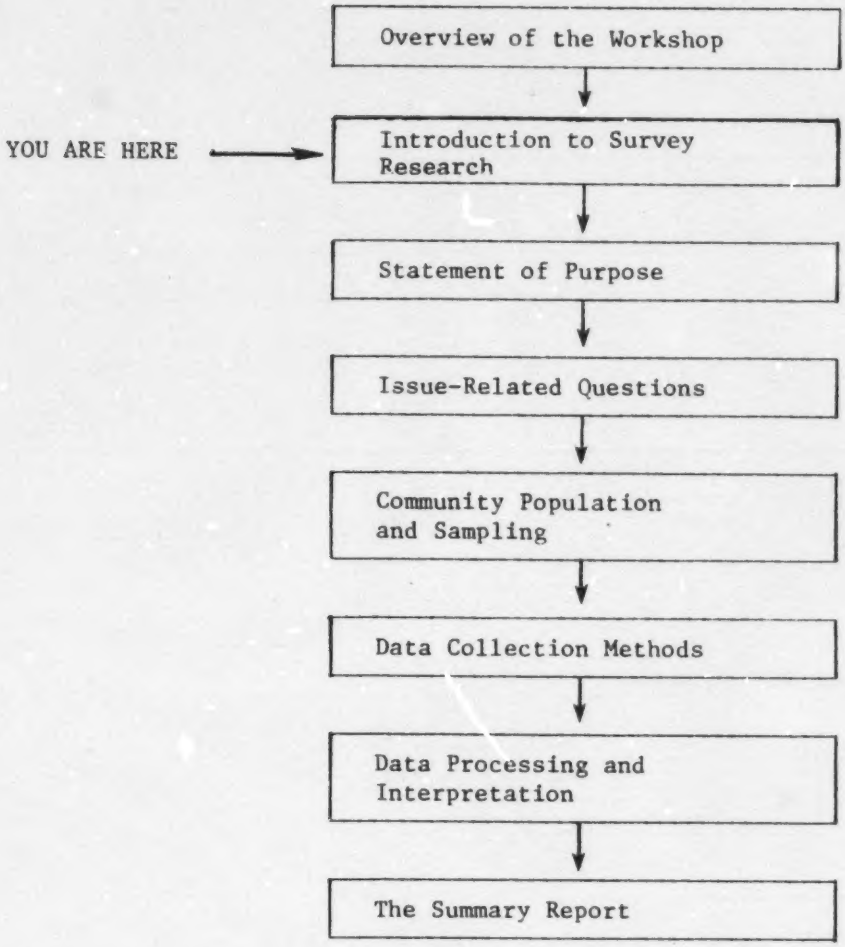
V. Community Population and Sampling

VI. Data Collection Methods

VII. Data Processing and Interpretation

VIII. The Summary Report

SEQUENCE OF ACTIVITIES



ACTIVITY

Introduction to Survey Research

This activity reviews the meaning of "survey" and describes briefly the procedures necessary to undertake a survey.

The estimated time for conducting this activity is 35 minutes.

1. *Review the following definitions with the participants:*

   - Survey -- an information gathering activity which obtains facts and opinions from all or some members of a population of interest.

   - Career Education Survey -- an information gathering activity designed to obtain facts and opinions about career education in order to revise or develop a career education program.

2. *Explain that survey methods include research techniques aimed at gathering data. Examples of these research techniques are as follows:*

   - Interviews (face-to-face or telephone) -- interactional exchanges in which one person (the interviewer) attempts to elicit information or opinions from another person or persons (the interviewees or respondents). Open-ended questions can be used effectively during interview situations.

   - Questionnaires -- self-administered instruments which include directions and examples illustrating how the questions should be answered in writing. Most questions on the questionnaires ask respondents to choose from options by making a check mark or by deciding the most appropriate answer. This survey method lends itself to gathering information by mail and about facts and opinions.

   - Group meetings -- specially designed meetings conducted to collect information about specific topics from participants. This survey method lends itself to gathering information about public opinions and to generating solutions to problems.

3. *Use the following background information as a basis for lecture or discussion:*

   - Survey research has had a long historical tradition. For example, ancient Egyptians and Romans counted population and conducted surveys of crop production for several purposes, including taxation.

   - Information collected by surveys can be of various types. Some examples are:

     - Gallup Polls are used to sample public opinion.

     - Market researchers employ surveys to evaluate product acceptance and use.

     - Scientific disciplines (e.g., economics, psychology, political science) make use of surveys to collect information relevant to the interests and problems in their field.

   - Studies involving surveys account for a substantial proportion of the research done in the field of education. For example:

     - Some reports indicate that one-third of the education research projects involve use of a survey (Lazarsfeld & Sieber, 1964).

     - Your local school system also conducts surveys. For example, a school census is conducted so that administrators can describe the educational needs of their schools. In addition, comprehensive school surveys are undertaken in order to explore and evaluate various aspects of the school, such as administrative procedures, staffing, curriculum objectives, or physical facilities.

4. *Explain to participants that opinion surveys are often used to collect information which is useful for the development or revision of a career education program. For example, a career education survey might be conducted to determine ways in which the business community could cooperate in improving career education instruction or to examine the extent to which high school teachers are currently infusing career education instruction into their courses of study. Ask participants to brainstorm reasons why a career education survey might be conducted and how this information would be used in developing a career education program.*

5. *Explain to participants that topics of this workshop follow steps outlined on the handout, "Overview of a Local Opinion Survey." Distribute the handout, "Overview of a Local Opinion Survey," and review the diagram with the participants.*

6. *(Optional) In some workshops, participants may need to review career education definitions, goal areas and program elements of career education. Ask participants if they think one or more of these topics should be reviewed now. Each of these topics is included in another workshop developed by Research for Better Schools, Inc. (Smey, 1981).*

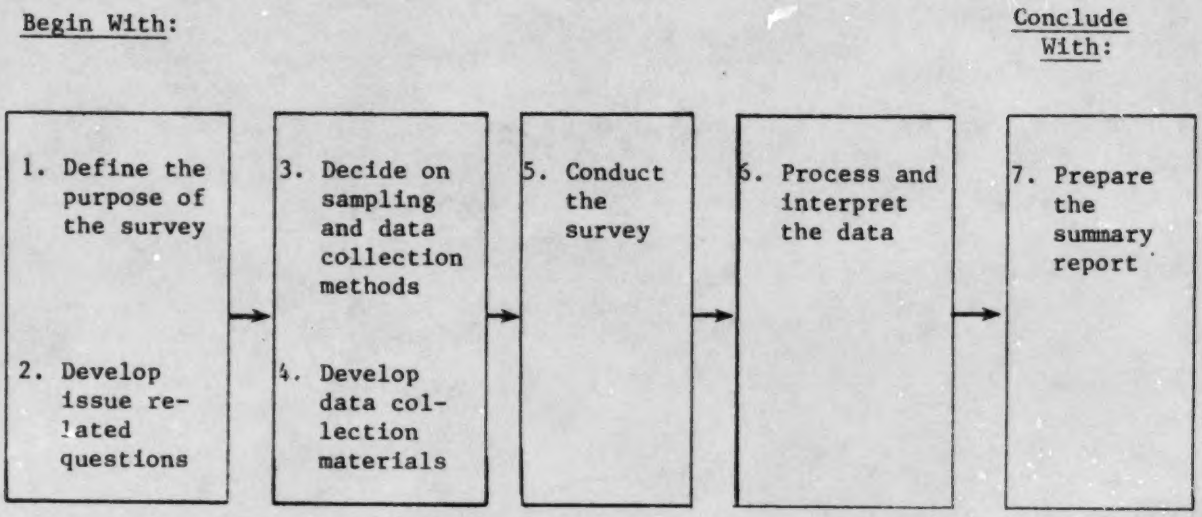
   - *Review the definition of career education which has been established in the school district. Write the definition on a chalkboard or posterboard. If a definition has not been agreed upon, review the various types of definitions using handout, "State Plans and Other Career Education Definitions."*

   - *Review the career education goal areas by distributing the handout, "Description of Career Education Goal Areas," and discussing each category.*

   - *Review program elements by distributing the handout,"Elements of an Operational Career Education Program," and discussing each category.*

ACTIVITY HANDOUT

Outline of a Local Opinion Survey


Begin With:
Conclude With:
1. Define the purpose of the survey
2. Develop issue related questions
3. Decide on sampling and data collection methods
4. Develop data collection materials
5. Conduct the survey
6. Process and interpret the data
7. Prepare the summary report

ACTIVITY HANDOUT

State Plans and Other Career Education Definitions

Council of Chief State School Oficers - Career education is essentially an instructional strategy aimed at improving educational outcomes by relating teaching and learning activities to the concept of career development.

Delaware State Plan - Career education is the totality of experiences through which one learns about and prepares to engage in work -- paid or unpaid -- as part of an expected way of living.

Florida State Plan - Career education is lifetime education. It is education to meet career needs at every stage during one's life.

Kenneth Hoyt's Definition - Career education thus becomes the totality of experiences through which one learns about and prepares to engage in work as a part of her or his way of living.

Maryland State Plan - Career education is a continuing educational process used deliberatively and collaboratively by school and community to provide and assist all individuals with opportunities to develop self and career awareness, explore a variety of career options, and choose and prepare for appropriate, satisfying, and potentially changing career roles.

New Jersey State Plan - Career education is the totality of experience through which one learns about and prepares to engage in work as part of his or her way of living.

Pennsylvania State Plan - Career education is a purposeful, sequential process through which the schools, family and total community cooperatively seek to assure the satisfactory career development of young people and their preparation for adulthood and successful transititon into the world of work.

RBS - Career education is the development in students of those competencies which will allow them to explore, understand and perform well the worker role and to comprehend the relationship of the worker role to other life roles such as citizen, family member, consumer, student, and participant in aesthetic and recreational activities.

ACTIVITY HANDOUT

Description of Career Education Goal Areas

Knowledge of Self and Others

Knowledge of self and others is a group of outcomes concerned with fostering in students an understanding of themselves and others and with developing student interpersonal skills. In working toward outcomes in this group, students become aware of their own interests, aspirations, abilities, attitudes and values, and those of others. Students also learn techniques for appraising and analyzing their personal characterisitics in terms of career options and begin to plan and take responsibility for self improvement. Further, students develop skills in getting along with others and in working cooperatively to achieve goals. As a result of their work on these outcomes, students begin to develop a clear understanding of themselves, an awareness of the directions in which they wish to change and grow, and a sense of responsibility for directing their own growth.

Career Awareness and Occupational Exploration

Career awareness and occupational exploration outcomes are those involving student knowledge of the different kinds of options open throughout one's career and those relating to student learning about how to examine various occupational fields. Students learn about the necessary training, benefits, duties and responsibilities of individuals employed in specific occupations. Students also become aware of the limiting effects of ethnic and sexual stereotyping and they broaden their horizons by examining alternative career roles. In addition, students gain an appreciation of the reasons why an individual would choose a particular type of work and the way in which this choice influences other roles (e.g., family member, citizen, consumer). Students learn how to investigate and assess their own interests, abilities, and values with respect to different occupations. As a result of work on outcomes in this category, students acquire background information about a wide range of careers and they examine in detail those occupational areas which interest them most.

Career Planning/Decision-Making

Career planning/decision making outcomes involve planning skills and decision-making skills as they relate to planning a career. Students learn that career planning involves examining alternative career paths in light of one's own interests, aspirations, abilities, attitudes and values, and making decisions accordingly. Students develop an understanding that thoughtful decisions made with an awareness of possible consequences can

help them effect their futures in positive ways. Once students have developed planning and decision-making skills, they are ready to formulate their own tentative career plans with the realization that these plans will be revised throughout life.

Career Preparation

Career preparation includes those outcomes which relate to student acquisition of academic and vocational knowledge and skills necessary to enact career plans.

Career Entry and Progression

The career entry and progression outcomes are concerned with developing the ability of students to find both paid and unpaid jobs. In addition, students learn about work attitudes and behaviors which help in retaining a job, and about procedures for moving up the career ladder. For students interested in entering postsecondary education, instruction is also offered on how to seek, gain acceptance into, and complete a program appropriate for them. As a result, students acquire skills which help them obtain their first jobs as well as subsequent employment.

ACTIVITY HANDOUT

Elements of an Operational Career Education Program

Course Instruction

Course instruction includes all school courses and all activities within those courses which contribute to student accomplishment of career education objectives. Activities include those which occur within the classroom and those extra-classroom activities which are assigned as part of a school course (e.g., homework, assigned work experiences).

Community-Based Learning Activities

Community-based learning activities refers to learning experiences which utilize community resources in a community setting and which require students to learn by observing, participating or producing. In a career education program, community-based learning activities include, for example, field trips, cooperative work-study programs, and observing or shadowing workers. Some community-based learning activities might be connected to a specific course of study while others might be offered as optional, noncourse-related learning opportunities.

Extra-Curricular Activities

Extra-curricular activities are experiences that occur under the aegis of schools, but are not part of regularly scheduled course instruction. Some of these activities have a specific career education purpose. Included among these are:

- career fairs - introducing students to an array of career choices through brief written, oral and visual presentations
- career clubs - developing student interest in a field and providing realistic views through specific information and direct experiences (e.g., Future Teachers of America)

Activities whose main purpose is something other than career education may have a career education dimension. Included among these are:

- clubs - providing varying experiences in areas of student interests, (e.g., drama club, debating club, chess club) often leading to vocation and leisure time activity choices
- sports activity - developing interpersonal and self revealing experiences through individual or team efforts

- student government - providing an opportunity for students to be leaders and followers

- special school project - developing career awareness and the ability to work and cooperate with others through such activities as car washes and bake sales.

Guidance Services

Career guidance services are formulated actions which focus directly on helping students as individuals perform well in life roles. These services usually include:

- appraisal - objective and subjective data are collected, analyzed and used to help students better understand themselves

- informational - students are made aware of opportunities available to them so they can make better career choices and decisions

- counseling - students individually and in groups, are helped toward self-understanding with emphasis on decision-making

- planning, and placement - students are helped to make individual career plans and to act upon these plans.

Resource Center

Career resource centers (sometimes referred to as career centers, career learning centers, or career guidance centers) provide a means for delivering a variety of career education and career guidance services and resources to students, staff members, and community members. The range of resources and service might include:

- occupational information files, such as career pamphlets, and computer-assisted information systems

- education/training information files, such as school catalogs and apprenticeship opportunities

- instructional media, such as films, filmstrips, workbooks, games and simulations and audio tapes

- curriculum guides or instructional activities files

- career exploration resources files, including field trip sites, opportunities for shadowing, and internships

- human resource files, such as volunteer speakers, consultants, and mentors
- job vacancy files
- consultation and training services for teachers implementing career education activities.

Although these resources and services could be provided in many different ways, there are advantages to having them organized and coordinated in one location.

School/Community Linkage

School community linkage refers to the connections between the school and non-school personnel such as parents, business and labor organizations, community groups, social agencies, government agencies, and community members in general.

Since students learn about careers in all settings, a career education program benefits from the active participation of community members. Ideally, community members should participate in a career education program by working with school personnel to plan and implement the program and by volunteering as guest speakers or as workers to be observed or shadowed. In addition, community resources such as funds, equipment, and paid and unpaid work opportunities should be used to support a school-sponsored career education program.

Staff Development

Staff development refers to ways by which professional personnel review or acquire skills, knowledge, and attitudes related to career education objectives. Staff development might occur as a result of courses, conferences, workshops, community-based learning activities (e.g., exchanges, shadowing, etc.), and other on-the-job experiences including regular or task/problem-oriented professional staff meetings. In addition, the content of a career education staff development program would ideally include the following: The rationale for a career education program student outcomes, strategies for implementing a comprehensive career education program recommended methods and techniques for teaching career education in the classroom, and resources available for career education.

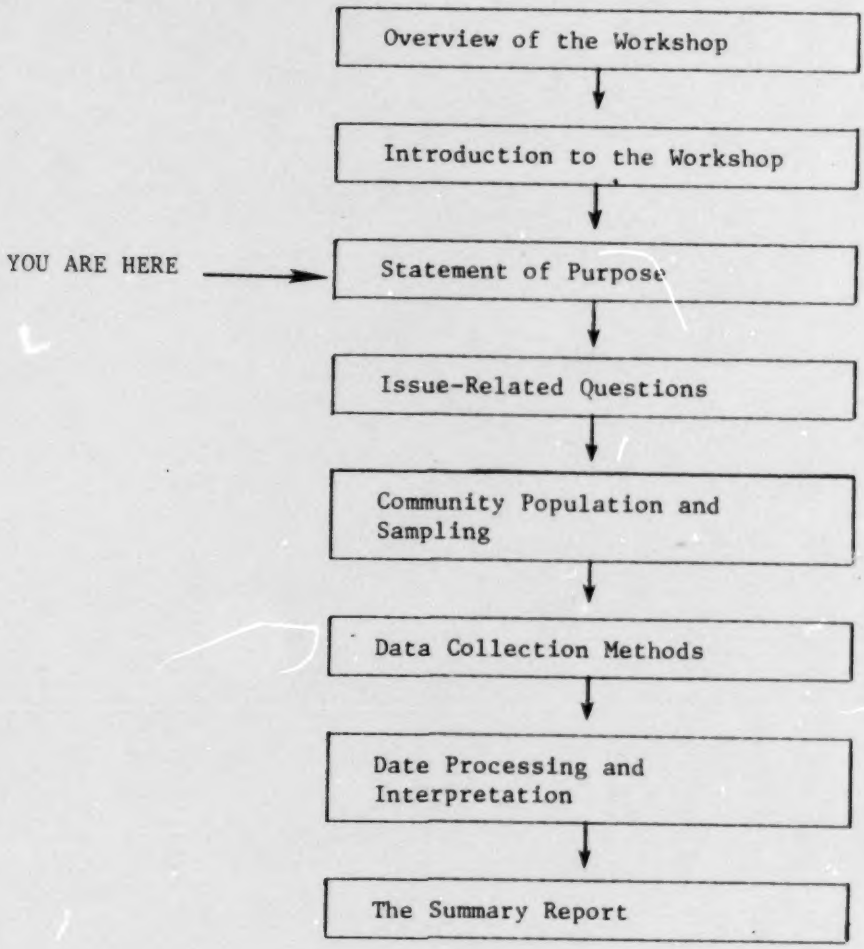
Administration/Management

Administration/management refers to planning, organizing, directing, and controlling human or material resources to accomplish predetermined objectives. In the case of a career education program, the task of

administering the program should be assigned to one individual (e.g., a career education coordinator) or to a small group of individuals who would be responsible for undertaking the following management functions:

- design and manage the planning and implementation of the program
- assess the roles and responsibilities of staff members in terms of the career education program and the relationship of this program to the school, school district, and community
- examine the career education program to ensure that it is compatible with the school district's rules, regulations and protocols
- construct and administer a budget for the career education program.

SEQUENCE OF ACTIVITIES



ACTIVITY

Statement of Purpose

The purpose of this activity is to describe factors which should be included in a statement of purpose.

The estimated time for conducting this activity is 45 minutes.

1. *Explain to participants that the first activity in planning a community survey is defining the purpose which will provide a framework for all subsequent survey activities. A clear purpose statement should include the following points of information:*

   - Background information explaining why the survey is being conducted and who is responsible for carrying out the survey
   - Issues of interest
   - Specific topics to be raised
   - Community groups from whom information should be collected
   - An explanation as to how the information collected will be reported and used.

2. *Distribute the handout, "Example of a Completed Purpose Statement." Review the information presented in the handout. Use the following information to embellish your discussion:*

   - Background -- a brief background description is developed to outline the situation which led to the community survey. It makes clear why the survey is being conducted. Most surveys are conducted for one to two reasons: to provide information which will help make a specific decision about some aspect of a career education program, or to provide information which will suggest some program possibilities. For example, a survey of employers to determine community-based career education resources will provide information which will suggest some program possibilities.

   - Issue of interest -- the issue of interest is the general question you want to pose. Some ways of stating these issues are:

- Should our current career education program be change?

- In what ways can our career education program be improved?

- What kinds of student qualities and understandings should be targeted for improvement?

The subject of the issue statement is the specific school program, service, or function which is being considered for change. In the case of our example, the issue is how can the teaching of career education be improved?

- Topic of interest -- to clarify the issue of interest, it is helpful to list specific aspects of the career education program to be examined. In the Franklin School example, the three aspects of interest were community-based learning experience, career guidance, and a career education resource center.

- Community groups from whom information should be collected -- the community groups to be involved in the survey should include people who are best able to furnish the information needed (i.e., individuals who have special knowledge about the topic and/or those who will be affected by the decisions to be made). In the foregoing example, parents, desiring the best possible education for their children, would be concerned about and affected by changes in their children's career education program.

Other examples of community groups which may prove relevant in a career education survey are:

- students

- teachers

- administrators

- all adult residents of a community

- members of the business community

- members of various civic organizations

- recent graduates.

- How the information collected will be used -- it is important to decide who will receive the information, how the information will be used, and the ways in which the information will be shared. For example, the planning team might ask: Is the information to be provided in a written report to parents? Will a funding agency expect to receive a detailed report? Does the school board expect to receive an informal briefing? Also, the amount of information to be collected and the type of audience will influence such factors as the number of people to be polled and the survey method to be selected.

3. *Divide the participants into small groups of three or four individuals. Distribute the handout, "Drafting a Statement of Purpose," and instruct each group to complete the form.*

4. *After all small groups have completed this assignment, reconvene the larger group and ask a representative from each small group to report the group's conclusion. Make a master list of the small group reports and then ask participants to arrive at a consensus of opinion about each of the subcategories. Write the agreed upon statement of purpose on a posterboard or chalkboard for future reference.*

   In carrying out this activity, it may be necessary to review the group's common frame of reference for career education. If need be, use handouts, "Descriptions of Career Education Goal Areas," and "Elements of an Operational Career Education Program" described in the previous section.

ACTIVITY HANDOUT

Example of a Completed Purpose Statement

1. BACKGROUND -- The career education planning team members from Franklin School have just learned that their students performed poorly in the area of career education on a statewide assessment test. They have already surveyed faculty attitudes about career education and the career education program. They now want to know what the parents of 7th and 8th grade students think about the program. The data obtained from faculty and parents will be used by the planning team to determine program changes.

2. THE ISSUE OF INTEREST -- What changes are needed to improve the teaching of career education?

3. THE TOPICS OF INTEREST ARE:

   - community-based learning experience
   - career guidance
   - career education resource center

4. THE GROUP(S) FROM WHICH INFORMATION SHOULD BE COLLECTED -- Parents of students in Franklin School.

5. THE INFORMATION COLLECTED WILL BE -- analyzed by the career education planning team in Franklin School. This group will report student test scores as well as faculty and parent assessments and recommendations. A summary will be sent to parents, faculty members, and community/business organizations.

ACTIVITY HANDOUT

Drafting of Statement of Purpose

DIRECTIONS: As a group, discuss the background and purpose of the survey you plan to conduct. After your group reaches consensus, complete this planning sheet.

1. BACKGROUND: _____

_____

_____

_____

2. THE ISSUE OF INTEREST IS: _____

_____

_____

_____

3. THE TOPICS OF INTEREST ARE: _____

_____

_____

_____

4. THE COMMUNITY GROUPS FROM WHICH INFORMATION SHOULD BE COLLECTED ARE:

_____

_____

_____

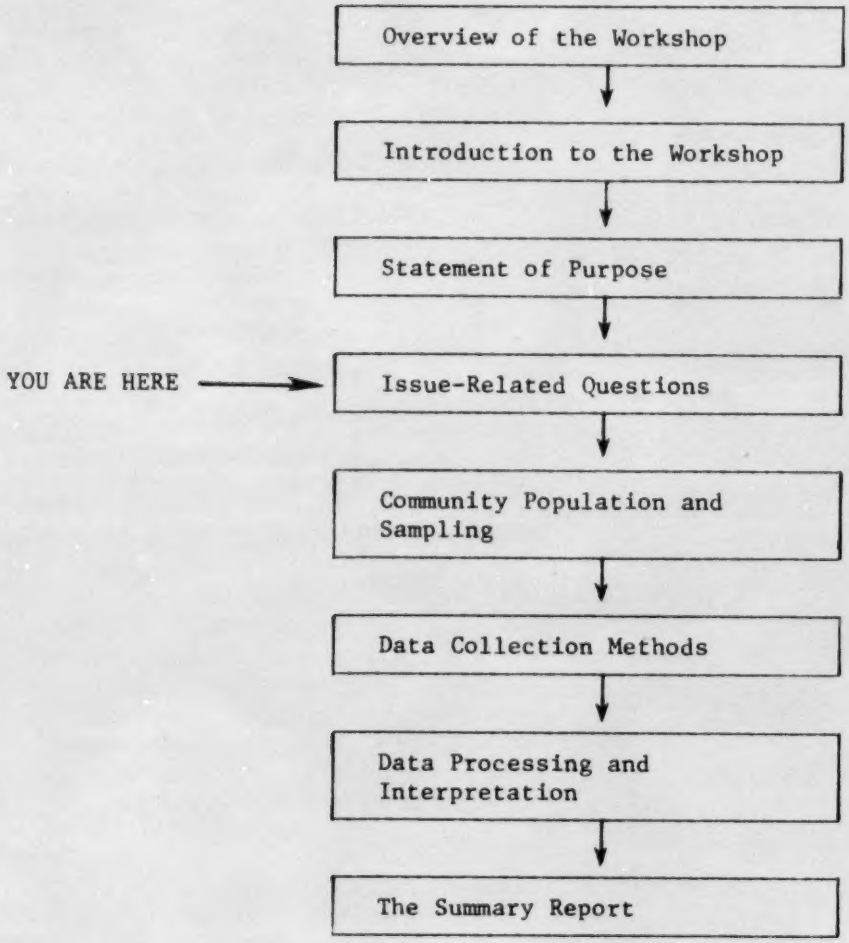
5. THE INFORMATION COLLECTED WILL BE: _____

_____

_____

_____

SEQUENCE OF ACTIVITIES



ACTIVITY

Issue-Related Questions

The purpose of this activity is to develop specific issue-related and demographic questions which participants may want to ask community groups.

The estimated time needed for conducting this activity is 60 minutes.

1. *Draw the diagram below on a chalkboard or posterboard and explain its meaning as follows:*

   An approach to developing issue-related questions can be illustrated in this manner:

   Issue of Interest → Topics → Subtopics → Questions

   One approach to developing issue-related questions involves subdividing the issues of interest represented by the purpose statement into topics of interest, breaking each topic into subtopics, and then developing questions for each subtopic. This process is helpful since it requires planning team members to clarify what they want to ask before getting involved in the details of how to phrase the question.

2. *Distribute the handout, "Example of Topics and Subtopics--Franklin School, " and explain that the next task is to compile a list of subtopics. Review the information on the handout, review the planning team's topics of interest contained in the statement of purpose, and then ask participants to suggest subtopics. List all suggestions on a chalkboard and discuss each suggestion. Ask participants to consider the following questions:*

   - On what aspect of this topic do we need information from community members?
   - From which groups is this informtion wanted?
   - How should this information be gathered from each group?
   - Would it be more efficient to collect this information from other groups or in other ways?

- Could we actually use this information in planning a career education program? How?

Encourage participants to include subtopics which they will be able to use in planning changes. This will increase the efficiency of the data gathering and interpretation processes.

3. *To help participants decide how to refine the general questions, briefly review the major types of questions, present examples of each, and provide a workshop time for preparing questions. The following can be used as the basis for either lecture or discussion:*

- Closed Questions: Closed questions provide a set of possible responses and instruct the individuals to select a response.

  Closed questions are especially useful where alternative responses can be pre-determined, are limited in number, and are relatively clear-cut. These closed questions are also most appropriate for securing either factual information or predictable expressions of opinion. The examples below illustrate various formats for writing closed questions:

  - The question can include alternative responses based upon a continuous scale of gradual increases or decreases from one response category to the next.

	Very Important	Important	Not Important	Not Sure
How important do you think it is for students to visit local community places of work?				

- The question can include alternative responses listing differences in kind and requesting the respondent to select "which one or ones."

There are certain attitudes, knowledge, skills, and behaviors which, if lacking in young employees, seem to be sources of employment problems. Some of these attributes are listed and described below. Please check (✓) the line to the left of the five (5) attributes which you feel are MOST IMPORTANT for employees between the ages of 16 and 21 to possess. Then check (✓) the line to the right of the five (5) attributes which you feel are those in which employees between the ages of 16 and 21 are MOST DEFICIENT.

FIVE MOST IMPORTANT (checks)		FIVE MOST DEFICIENT (checks)
____	BASIC ACADEMIC SKILLS: The mathematics and English skills necessary for tasks such as filling out a job application, conducting routine correspondence, monitoring inventories, etc.	____
____	COMMUNICATIONS SKILLS: The skills required to understand and give instructions, describe problems, express oneself clearly in writing, etc.	____
____	KNOWLEDGE OF THE WORLD OF WORK: Understanding the nature of work, the role requirements imposed by work, the idea of collective bargaining, fringe benefits, seniority system, etc.	____
____	INTERACTION WITH FELLOW WORKERS: The ability to get along and act in concert with one's peers	____
____	INTERACTION WITH SUPERIORS: The ability to recognize and accept the existing chain of command	____
____	POSITIVE ATTITUDE: Concern for the organization and its products; positive approach to tasks assigned	____
____	CRAFTSMANSHIP: The quality and accuracy of work produced	____
____	DEPENDABILITY: Good attendance and punctuality; the acceptance of responsibility; accountability	____
____	PRODUCTIVITY: The speed and quanity of work produced	____

- Open-Ended Questions: Permit a free response, rather than one limited to the responses provided. The respondent is free to comment on any aspect of the topic of interest.

Open-ended questions permit the respondent to reply freely in terms of personal perceptions of the topic. Responses to these questions may suggest relationships not originally anticipated, and the length and quality of the answers can vary greatly from respondent to respondent. Therefore, it is more difficult and time consuming to tabulate responses to open-ended questions.

The questions below might be used to collect information on a work-study program:

- The topic can be presented in a single question; the a follow-up question can be asked to elicit additional data:

> What do you know about the high school work-study program?
>
> Where did you get your information?

- The topic can be introduced with one or two brief statements followed by relevant questions:

> The work-study program has been in operation for six months.
>
> 1. What do you like most about the program?
>
> 2. What do you like least about the program?
>
> 3. If you could change the work-study program, what changes would you make?

- The question can be an incomplete statement which the respondent is asked to complete in his or her own words:

> The students in the work-study program...
>
> The benefits of the work-study program...

4. *Distribute the handouts, "Example of General Questions Developed from a Specific Subtopic," and review it with the group. Next, distribute the handout, "Developing General Questions," read the directions on the handout, and divide participants into small groups. Assign each small group a set of subtopics from the list just generated. Ask each group to write questions on one or more subtopics and to report these questions back to the group at large. The group at large should discuss the questions and decide which ones they want to use.*

5. *Distribute the handout, "Developing Demographic Questions," and discuss with the group the type of demographic information needed. This list might include, for example, the respondent's sex, age, years of education, years of residence in the community, and number of children currently enrolled in public schools. To help participants write demographic questions, describe them as follows:*

Demographic Questions: Demographic information is usually gathered to verify that a respondent does belong to the group being studied and to determine if the respondent's characteristics have any relationship to his/her answers to specific questions.

- Demographic information can be collected using the closed-question format. Examples of such questions might be as follows:

SEX
Male ___
Female ___

AGE
20 to 29 years ___
30 to 39 years ___
40 to 49 years ___
50 years or over ___

EDUCATION
High school incomplete ___
High school graduate ___
Technical, trade, or business school ___
College incomplete ___
College graduate ___
Graduate school incomplete ___
Graduate school degree ___

YEARS OF RESIDENCE IN THE COMMUNITY
0-5 ___ 11-15 ___ 21 or more ___
6-10 ___ 16-20 ___

How many CHILDREN do you have? Circle the appropriate number.
0 1 2 3 4 5 6 7 or more

- Demographic information can also be collected using the open-question format. Examples of such questions sent to community residents might be as follows:

What is the date of your birth? _____

What is your occupation? _____

How many years have you lived in this community? _____

How many years of education have you completed? Include elementary school, high school, college, graduate, technical, trade, or business school in your answer? _____

_____

How many children do you have? _____

What are the ages of your children? _____

In which school grades are your children enrolled? _____

_____

ACTIVITY HANDOUT

Example of Topics and Subtopics--Franklin School

ISSUE OF INTEREST: What changes are needed to improve the teaching of career education?

TOPICS OF INTEREST	SUBTOPICS
1. Community-Based Learning Experience	a) course credit given b) separate course of study c) required or volunteer enrollment
2. Career Guidance	a) getting parents involved in career guidance b) part of course instruction c) useful activities to sponsor
3. Career Interest Resource Center	a) location of center b) type of target groups to be served c) type of materials to purchase

ACTIVITY HANDOUT

Example of General Questions Developed From A Specific Subtopic

TOPIC OF INTEREST: Career Guidance

SUBTOPIC: Getting Parents Involved in Career Guidance

GENERAL QUESTION 1. Which of the career guidance activities involving parents should we continue?

GENERAL QUESTION 2. How could parents become more involved in career guidance?

GENERAL QUESTION 3. What type of parent involvement in career guidance is more effective?

ACTIVITY HANDOUT

Developing General Questions

DIRECTIONS: This planning sheet can be used to develop general questions for each of the subtopics involved in your survey. As your group reviews each question, ask yourselves: Will community response to this question provide information which will help us realize the purpose of our survey?

Topic: _____

_____

Subtopic	General Question
_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____

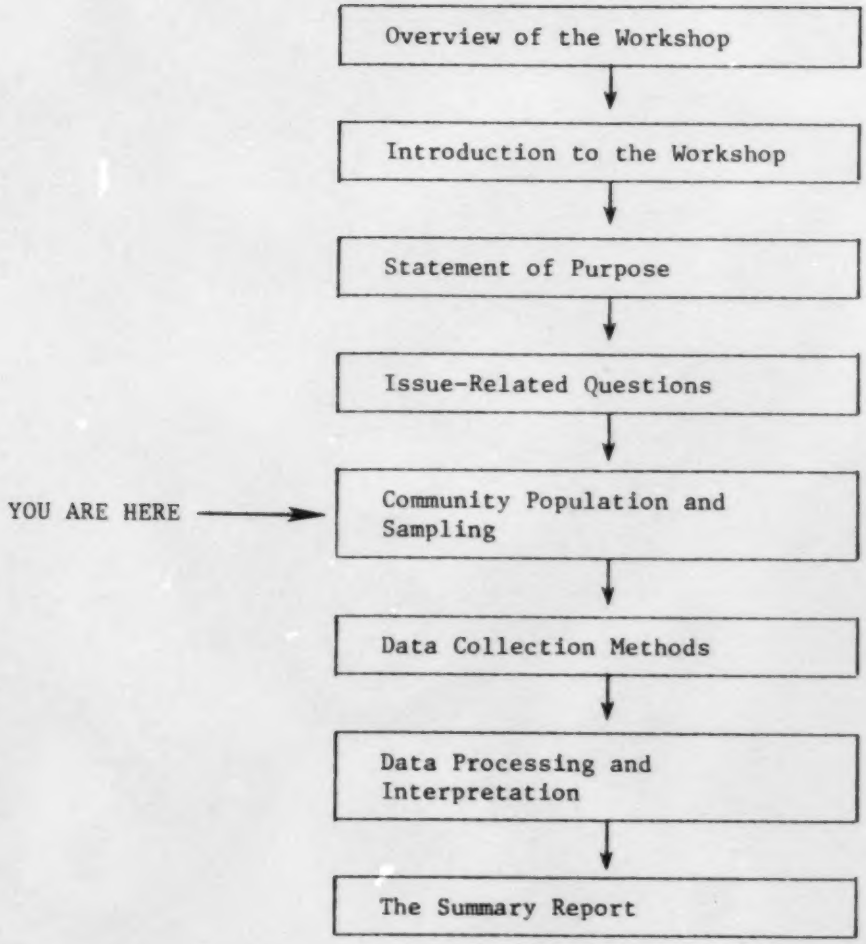
ACTIVITY HANDOUT

Developing Demographic Questions

DIRECTIONS: Discuss and list below any demographic questions you may want to ask. Develop this list in terms of the following questions: How will this demographic information help us in considering the issue of interest? How can we use the information collected in processing and interpreting our data?

Question	How Responses Will be Used

SEQUENCE OF ACTIVITIES



ACTIVITY

Community Population and Sampling

The purpose of this activity is to discuss and describe the selection of survey respondents.

The estimated time for conducting this activity is 60 minutes.

1. *Explain to the planning team that the next step in conducting a survey is to decide if an attempt should be made to collect information from all the members of the community groups listed in the purpose statement or from a sample of people. Describe a sample as follows:*

   A sample is a group of people chosen to reflect the composition of a population (e.g., the total community group). A sample is usually used when you cannot afford the cost (e.g., time, money, energy) of gathering and processing information for the entire population of interest.

2. *One consideration in selecting a sample is the sample size or in other words, the number of individuals to be included. Suggest that, as a general rule of thumb, the planning team will want to have approximately 50 people from each community group responding to the survey. In using a mail out questionnaire, they should send instruments to considerably more than 50 people since a large percent (sometimes 80 percent or more) of the people will probably not reploy.*

3. *Explain to the planning team that probability sampling techniques can be used to choose respondents for a sample. In probability sampling, (1) the process for selecting the respondents is not left to the judgment or convenience of the investigator, and (2) the probability that a given respondent will be included in the sample is known. List the four types of sampling techniques on a chalkboard or posterboard and describe each briefly.*

   - Simple random sample -- In a simple random sample, each individual has an equal chance of appearing in the sample. For example, suppose that you are interested in a population of 1,000 people and want to select 100 of them for a sample. In this case, the sampling unit is the individual. You could make a list of the 1,000 people, put each person's name on a separate piece of paper, fold it, and drop it into a large bowl. Then you could shake the bowl, draw a name, shake the bowl again, draw another name, and so on until you had the desired number of names. The bowl must be shaken before each name is drawn so that each person's name has the same chance of being chosen.

In practice, a listing of eligible respondents is used in place of the pieces of paper. Names are selected randomly from all parts of the list using a table of random numbers. The key information requirement for simple random sampling is a complete list of all eligible respondents.

- Systematic sampling -- Systematic sampling is not a probability sampling method like the others listed here. Yet it is easy to understand and use. Again suppose you want to select 100 people for a sample from a population of 1,000 people. Using a systematic sampling procedure, you could divide 1,000 by 100 obtaining 10 for your sampling interval. Every tenth name on the list of eligible respondents would then be selected for the sample. It is easier to draw a systematic sample than a random sample because you are not required to look up numbers from a table of random numbers to select each respondent. Systematic sampling, like random sampling, however, requires a complete master list of eligible respondents.

- Stratified sampling -- Although the object in sampling is to reflect a total population in miniature, all of the sampling procedures previously discussed involve some risk that the sample selected may contain a disproportionate number of people from a particular subpopulation. With a stratified sampling procedure, the population is divided into subpopulations on the basis of one or more variables which are believed to be correlated with the information being collected. Each group or stratum would require a sample large enough to provide approximately 50 completed responses. Respondents may then be selected from each subpopulation or stratum by simple random sampling or systematic sampling methods.

- Cluster sample -- As noted previously, a master list is needed if simple random or systematic sampling procedures are used. Often no accurate list is available. In this instance, cluster sampling provides a compromise technique which will enable you to work with clusters of individuals. Suppose that you do not have an accurate population list to use in drawing a sample of 100 people from an area of the city with about 5,000 people, but that you do have a list of the city blocks in which they live. You could choose city blocks (clusters of individuals) at random and then choose, randomly or systematically, the desired number of households from each cluster (city blocks) selected.

4. *There are certain advantages and disadvantages to each of the sampling techniques. Distribute the handout, "Probability Sampling Techniques," and review the information contained therein. Then distribute "Common Sampling Pitfalls," and discuss these.*

5. *Conclude this activity by asking participants to discuss which of the sampling techniques would be most appropriate for the career education survey they plan to conduct, how the sample could be selected and the number of individuals to be included in the sample. This discussion can occur in either a large group or a small group setting.*

ACTIVITY HANDOUT

Probability Sampling Techniques

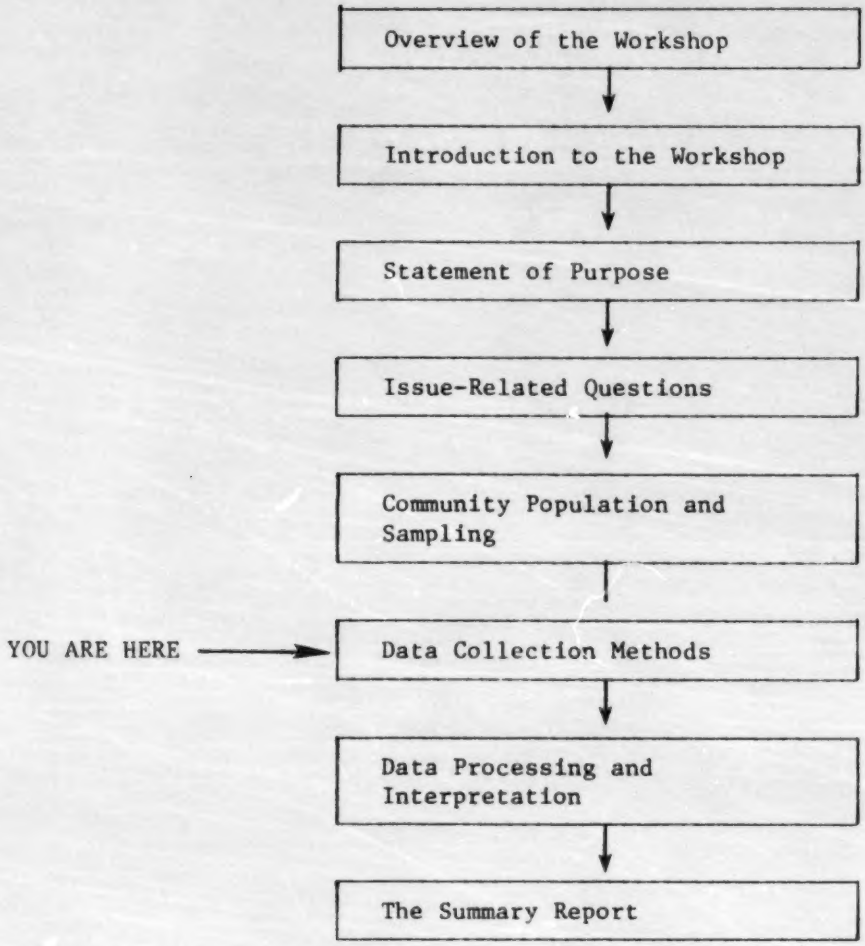
SAMPLING TECHNIQUE	ADVANTAGES	DISADVANTAGES
Simple Random: The probability of selection is the same for every eligible respondent and for every possible grouping of eligible respondents.	Provides unbiased results. Easy to understand.	A master list of eligible respondents is needed. Somewhat expensive, especially when population lists are not readily available. May result in large sampling error, since certain population groups may be disproportionately represented in the sample.
Systematic: The sampling interval is determined by dividing the number of people to be included in the sample into the total number of eligible respondents.	Easier and less time consuming to use than simple random sampling.	An eligible respondent list is needed which may be difficult to obtain. May result in a biased sample if the names of some population groups are grouped together on the list.
Cluster: The sample is based upon clusters of eligible respondents. Once clusters are selected, simple random sampling or systematic sampling methods are used.	Cluster sampling is a good technique to use if no complete list of the population is available. Cluster sampling is especially appropriate when used in conjunction with other sampling procedures. When personal interviews are to be conducted with members of a population scattered across a large geographical area, sampling from clusters will reduce costs.	Clusters are rarely miniatures of the poplation. More individuals are needed for cluster sampling than for simple random sampling to obtain the same levels of tolerable sampling errors.
Stratified: The sample is drawn from subpopulations which are determined on the basis of characteristics believed to be correlated with the information being collected.	This procedure guarantees representation of subpopulations stratified on the basis of characteristics which are expected to affect their responses. Since it permits inferences for each subpopulation, stratified sampling results in more useful estimates than other sampling procedures.	Each subpopulation or stratum requires its own sample of approximately 50 completed responses. As a result, the stratified sampling procedures cost more to conduct than other sampling procedures.

ACTIVITY HANDOUT

Common Sampling Pitfalls

PITFALL	EXAMPLE	SUGGESTED SOLUTION
Overemphasis on convenience	Selecting people who are readily available or cooperative.	Use a probability sampling technique when selecting people to be included in the sample. Explain the sampling procedure being used to the people who collect the data. Explain how deviations from procedures may result in a biased sample.
	Going door to door and including only those people who happen to be at home.	Follow-up procedures should be implemented to contact people who were not at home the first time.
Outdated or insufficient information	Using a list of community members that is outdated and/or inaccurate.	Make every effort to update the population list from which the names for the sample are to be selected.
Insufficient information collected	Low return rate obtained. (Ignoring non-respondents may present a mistaken picture and lead to false conclusions).	Follow-up procedures should be implemented. Try using a different follow-up method than the method originally used, e.g., if mail questionnaires were used, follow-up with a telephone call.
	Materials returned indicate respondents did not have sufficient information to answer the questions asked.	Reexamine the community groups included in the project. It is possible that you selected the wrong groups to provide the information you need. Reexamine your data collection materials. Ambiguous or unclear questions may make it difficult for the people included in the sample to provide the information needed.

SEQUENCE OF ACTIVITIES



ACTIVITY

Data Collection Methods

This activity focuses on step by step procedures for data collection using mail questionnaires, interviews, and group meetings; and on the advantages and disadvantages of each.

The estimated time for conducting this activity is 70 minutes.

1. *Explain to participants that before selecting a data collection method, the planning team should discuss the various procedures for conducting a survey. Ask participants to consider what tasks are involved in conducting a mail questionnaire. List their suggestions on a chalkboard or posterboard and then ask the participants to sequence the tasks. Follow the same procedures for tasks involved in conducting interviews and group meetings. The steps below should be reviewed in these discussions:*

   - Steps for conducting a mail questionnaire survey

     - Pilot test the questionnaire with a small group of individuals similar to those who will eventually be studied.
     - Revise and rewrite the survey instrument according to the recommendations of the pilot study group.
     - Print up sufficient copies of the final questionnaires and cover letters.
     - Develop a list of respondents.
     - Assign code numbers to questionnaires in order to identify respondents.
     - Select a mailing date and a date to return the questionnaires.
     - Set up a monitoring system to check for returned and unreturned surveys.
     - Prepare, address, and send mailing envelopes and prepaid return enevlopes.
     - Follow-up non-respondents with additional mailings and telephone calls.
     - Sort questionnaires for data processing.

- Steps for conducting an interview

  - Pilot test the interview schedule with a small group of individuals similar to those who will eventually be studied.
  - Revise and rewrite the interview schedule according to the recommendations of the pilot study group.
  - Print up sufficient copies of the interview schedule.
  - Develop a list of people to be interviewed.
  - Select and train interviewers.
  - Select a starting and ending date for conducting the survey.
  - Set up a monitoring system.
  - Schedule interviews.
  - Conduct interviews.
  - Follow-up people who did not keep their appointments.
  - Review interviews for data processing.

- Steps for conducting a group meeting

  - Develop a list of individuals to be invited to the meeting.
  - Select a time and place for the meeting.
  - Prepare, address, and mail out invitations to the meeting along with prepaid postcards.
  - Follow-up with people who did not return the postcards.
  - Determine a method for recording data.
  - Print up sufficient copies of materials to be distributed at the meeting.

- Select and train personnel needed to conduct the meeting.

- Conduct the meeting.

- Review the data collection materials for data processing.

2. *One important consideration in selecting a data collection method is the cost of the method. Ask participants to list what costs they think are involved in each of the three methods under consideration. Their discussion should include the following information:*

   - Mail Questionnaire

     - Printing the questionnaires and cover letters

     - Postage

     - Time for staff to prepare, type, format and mail the questionnaire

     - Time for staff to monitor the returned questionnaires and to follow-up on unreturned questionnaires

     - Time for staff to code the questionnaire responses and prepare the data summaries.

   - Interviews

     - Printing of interview schedules

     - Telephone costs and/or travel costs

     - Time for staff to prepare type, and format invitations and interview questions

     - Time for staff to schedule and conduct interviews

     - Time for staff to monitor the progress of interviews

     - Time for staff to code the questionnaire responses and to prepare data summaries.

   - Group Meetings

     - Printing of invitations and materials to be distributed at the meeting

- Cost of meeting facilities
- Travel costs
- Time for staff to plan the meeting
- Time for staff to prepare, type and and format materials to be distributed at the meeting
- Time for staff to conduct the meeting
- Time for staff to prepare summary reports of the meeting.

3. *Ask participants to discuss the advantages of each of the three data collection methods. List their responses on a chalkboard or poster-board. The list might include the following examples:*

- Mail Questionnaire
  - A large number of respondents can be contacted simultaneously.
  - Anonymity is possible with questionnaires.
  - The cost of this method is relatively low compared to the other methods.
- Interviews
  - Most of the interviews scheduled are completed.
  - Answering interview questions does not require specific reading or writing skills.
  - An interview can establish rapport with a respondent and thus, strengthen the respondent's motivation to reply.
  - An interviewer can clarify the meaning of both questions and answers.
- Group Meetings
  - Participants are able to discuss multiple approaches to a problem or question.

- Participants can develop a better understanding of the reasons for particular decisions.

- A large number of people can be polled in a short period of time.

4. *Ask participants to discuss the disadvantages of each of the three data collection methods. List their responses on a chalkboard or posterboard. The list might include the following examples:*

   - Mail Questionnaire

     - People frequently do not complete or return the questionnaire.

     - There is no opportunity to clarify the meaning of a question or a response.

     - Completing a questionnaire requires both reading and writing skills.

   - Interviews

     - Training is required to prepare the interviewers.

     - An interviewer may introduce his or her biases when recording information.

     - Interviewing is a relatively more time-consuming process than other data collection methods.

     - Interviewing can be costly if the personnel conducting the interviews must be paid and if long distances must be travelled.

   - Group Meetings

     - A skillful leader is needed to ensure that most individuals participate.

     - Social pressures may influence the responses given.

     - The group process frequently makes it difficult to gather complete data or, in some instances, to keep the discussion focused on the agenda.

- The data collected may not accurately reflect the context in which the information was provided or the data may be difficult to interpret.

5. *One difficulty in conducting a local opinion survey in career education is that respondents may not be highly motivated to participate. Discuss with the planning team members ways to encourage participation.*

- Mail Questionnaire

  - Include a cover letter or statement explaining the purpose of the survey and the importance of the respondent's assistance.

  - Explain in the cover letter that responses will be confidential or anonymous.

  - Set a time limit for returning the questionnaire.

  - Include a telephone number should respondents want more information.

  - Include a postage-paid return envelope.

  - Follow-up the original mailing with reminders about returning the questionnaire.

  - Personalize all correspondence by using the individual's name and signing each letter with a blue pen.

  - Publicize the study.

- Interviews

  - When introducing the interview, be brief, casual and positive. Answer any questions the respondent may have, and indicate that the interview is not a test. Also, estimate the amount of time the interview will take.

  - Indicate that responses will be confidential.

  - Publicize the study.

- Group Meetings

  - Send a letter to participants explaining the purpose of the survey and the importance of their assistance.

- In the invitation, estimate the time required to participate in the meeting.

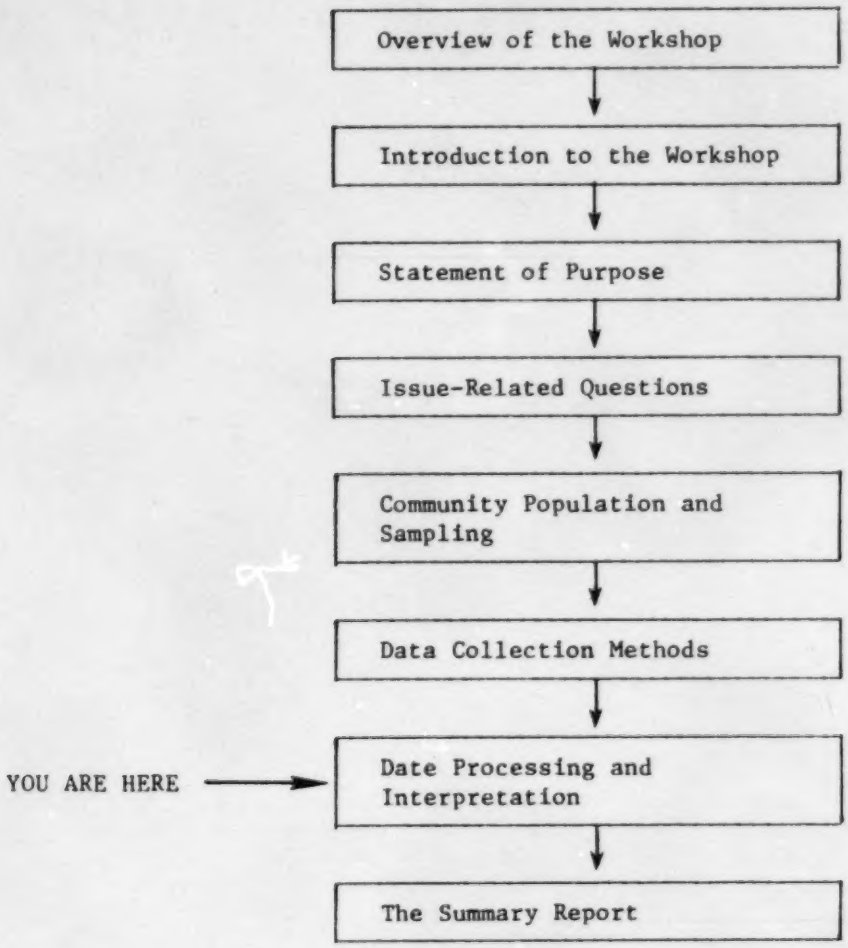
- Enclose a postage-paid return postcard with the invitation so that recipient can indicate whether or not he/she plans to attend.

- Publicize the meeting and study.

- If possible, offer the respondents refreshments.

6. *Encourage participants to make a decision regarding the data collection method their group should use. In this discussion, direct participants to keep in mind the purpose of their survey, the specific questions to be asked, the advantage and disadvantages of each method, and the cost of conducting the method. This discussion should center on the reasons why the group should choose one of the three alternative methods.*

SEQUENCE OF ACTIVITIES



ACTIVITY

Data Processing and Interpretation

The purpose of this activity is to provide an introduction to the task of data processing and interpretation.

The estimated time for conducting this activity is 60 minutes.

1. *Explain to participants that once the data are collected, the next step is to process and then interpret the data. To do this, they must first summarize the data. Distribute the handout, "Example of a Data Summary Sheet," and explain that this is an easy technique which they could use. Note that the example illustrates both closed and open questions:*

   - Closed questions -- provide sets of possible responses; therefore, the response categories are already set. The team should assign codes so that the most positive response category is assigned the highest number (see example provided).

   - Open questions -- elicit a free response which may reflect the respondent's attitudes, opinions, or knowledge about any aspect of the topic involved. In order to process the data from open-ended questions, the responses to each question must be categorized.

     Three guidelines for categorizing the responses to open-ended questions should be noted:

     - The categories for each question should be derived from a single principle of classification (e.g., degree of importance, type of activity).

     - The categories should be mutually exclusive (i.e., it should not be possible to place a given response in more than one category).

     - The categories should be exhaustive (i.e., it should be possible to place every response given in one of the categories established). To accomplish this, it may be necessary to establish a "catch-all" category for each question.

2. *When the responses to all questions have been coded, the responses can be submitted by code number on a data sheet. Distribute handout, "Example of a Data Sheet," and explain that in this example, each response is identified by a code number in the left-hand column. Also note that questions are identified across the top of the sheet and the sheet is filled out by entering the code number assigned to the response given by the respondent to each question.*

3. *The next task in processing the data is to summarize the responses of each polled group to each question in the survey. By using the data record sheet, members of the planning team could prepare a frequency table and graphic supplement, or they may wish to calculate summary statistics.*

   A. *Distribute the handout, "Example of a Frequency Table and Histogram," and explain that a table can be used to display the complete range of responses given to a question. A frequency table can also be presented as a histogram or bargraph as shown in the handout.*

   B. *Distribute the handout, "Example of a Frequency Table with Percentages and Means Calculated from Frequency Data." Explain that many types of summary statistics are available, but this workshop will be limited to two of the most useful. They are as follows:*

- Percentages -- Figures in a frequency table are converted to percentages to indicate the proportion of the group which gave a particular response to a certain question. It is usually considered to be good practice to avoid using percentages for small totals (i.e., less than 20 respondents). Also, fractions of percentages should not be used.

- Mean -- The "mean" or average response to a set of responses is used to indicate the typical response of individuals to a question. It indicates what a group feels about a question when the responses are "averaged out." This can be computed only if the response categories relate to a continuous scale which indicates a gradual increase or decrease from one response to the next. The mean can easily be computed from data in a frequency table, as shown in the handout, "Example of a Frequency Table with Percentages and Means Calcuated from Frequency Data."

4. *Finally, the planning team members must interpret the summarized data. In some cases, the interpretation would be solely a narrative description of the findings and in other cases, it would consist of a series of graphs or tables with an explanation of the meaning of each. The way data are interpreted depends on the data itself, the data collection method, and the values and perceptions of the interpreter. Therefore, the interpretation of data from a local opinion survey must be viewed as a process of devising ways to examine information which support these conclusions.*

5. *Distribute the handout, "Interpretation of Tabular Data," and briefly review the three different interpretation methods as follows:*

   - Example One: A simple summary statement describing the response of each group is included. In this example, the statement specifically mentions the statistic (percentage, frequency or means) which best describes the response.

   - Example Two: If more than one group responds to a question and their responses are similar, combine the responses into one table and prepare a summary statement describing the combined responses. In such a summary, the planning team should highlight any differences in the responses of the separate groups.

   - Example Three: If more than one question was asked on a specific topic or subtopic, decide whether or not the responses to those questions should be considered together. If it is decided that questions should be considered together, prepare a summary statement which clarifies the relationship between the responses to those questions and suggests how those responses support a general conclusion or interpretation.

ACTIVITY HANDOUT

Example of a Data Summary Sheet

Question: Each student in Franklin School should have formal instruction in career education.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

Probe: Please explain your answer below.

_____

_____

_____

A. Data Summary for the Closed Question

Response	Number of Parents	%	Number of Teachers	%
Strongly Agree	68	32	57	29
Agree	98	45	120	60
Disagree	32	15	20	10
Strongly Disagree	15	7	3	1
No Response	2	1	0	0
	215	100	200	100

B. Data Summary for the Probe

Response	Number of Parents	%	Number of Teachers	%
1. Career education is important.	100	47	120	60
2. Students in these grades need to learn about work.	82	38	55	27
3. The students should understand how school subjects relate to jobs.	21	20	19	10
4. Other	12	5	6	3
	215	100	200	100

ACTIVITY HANDOUT

Example of a Data Record Sheet

Community Group: Parents of Franklin School Students											
Respondent Code Number	Question Number										
	1	2	3	4	5	6	7	8	9	10	11
001	5	3	4	4	4	2	2	1	2	4	3
002	4	3	1	4	5	2	3	1	3	5	4
003	2	3	3	2	4	1	2	2	2	5	5
004	4	3	1	3	5	2	1	2	1	3	3
005	3	4	2	2	4	1	2	1	3	4	3
006	3	3	1	3	4	3	3	2	2	3	3
007	NR	2	2	4	5	2	2	1	3	3	2
008	4	3	1	3	3	1	NR	NR	3	4	3
009	3	5	1	4	5	2	1	1	2	5	5
010	4	3	2	3	4	1	1	2	3	5	3
011	2	3	1	2	3	3	2	1	2	3	3
012	5	3	3	3	5	3	1	3	2	4	4

NR = No Response

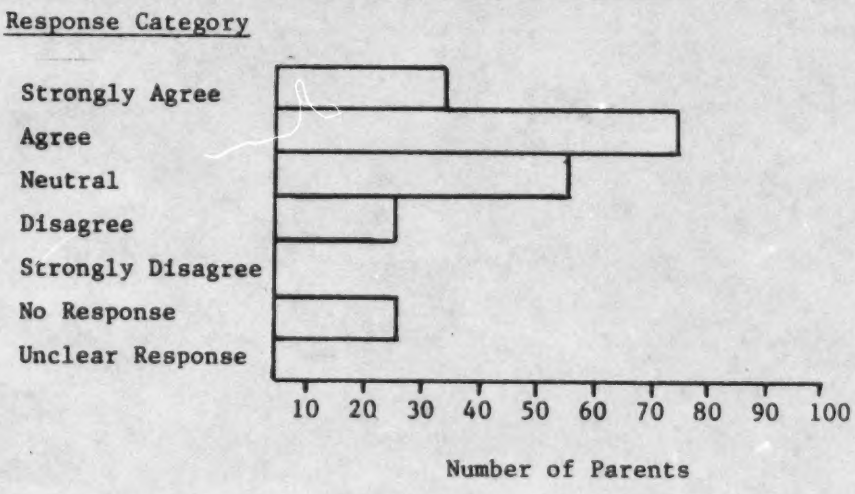
ACTIVITY HANDOUT

Example of a Frequency Table and Histogram

Question 1: Franklin School students should be expected to enroll in a separate career education course.

Response Category	Number of Parents
Strongly Agree	36
Agree	75
Neutral	54
Disagree	25
Strongly Disagree	0
No Response	25
Unclear Response	0

Question 1: Franklin School students should be expected to enroll in a separate career education course.



ACTIVITY HANDOUT

Example of a Frequency Table with Percentages and Means Calculated from Frequency Data

Question 1: Franklin School students should be expected to enroll in a separate career education course.

Response Category	Number of Parents	%
Strongly Agree	36	16
Agree	75	35
Neutral	54	25
Disagree	25	12
Strongly Disagree	0	0
No Response	25	12
	215	100%

Interpretation:

- A total of 51 percent of the respondents either strongly agreed or agreed that Franklin School students should be expected to enroll in a separate career education course.

- Only 12 percent of the respondents disagreed with the statement and none strongly disagreed.

Question 1: Franklin School students should be expected to enroll in a separate career education course.

Response Category	Number of Parents	Scale Value	Scale Value x Number of Parents
Strongly Agree	36	5	180
Agree	75	4	300
Neutral	54	3	162
Disagree	25	2	50
Strongly Disagree	0	1	0
No Response	25	0	0
	215 (less 25 is 190)		692

Mean = $190\overline{)692}$ = 3.64 (which can be rounded to 3.6)

Interpretation:

- The mean score for question 1 was 3.64. This indicates that the average response of parents was closest to "4" or the "agree" choice on the scale.

ACTIVITY HANDOUT

Interpretation of Tabular Data

Example 1:

1. Career education should be a program goal for our school.

(1) In favor (2) Not in favor (3) Not sure

	COMMUNITY GROUP			
Response Categories	Franklin School No. of Parents	%	Smith School No. of Parents	%
(1) In favor	70	70	134	67
(2) Not in favor	20	20	40	20
(3) Not sure	10	10	26	13
Total	100	100%	200	100%

Interpretation:

- Seventy percent of the parents of Franklin School students stated that they were in favor of career education as a school program goal. Twenty percent were not in favor of the goal, and ten percent were unsure.
- Sixty-seven percent of the parents of Smith School students stated that they were in favor of this goal. Twenty percent were not in favor of this goal, and thirteen percent were unsure.

Example 2:

1. Career education should be a program goal for our school.

(1) In favor (2) Not in favor (3) Not sure

Response Categories	Franklin School Number of Parents	%	Smith School Number of Parents	%	Both Schools Number of Parents	%
(1) In favor	70	70	134	67	204	68
(2) Not in favor	20	20	40	20	60	20
(3) Not sure	10	10	26	13	36	12
Total	100	100%	200	100%	300	100%

Interpretation:

- Sixty-eight percent of the parents of both Franklin and Smith School students were in favor of career education as a school program goal. Twenty percent were not in favor of this goal, and twelve percent were unsure. Parents from each of the schools did not differ greatly in their opinions.

Example 3:

Data Summary for Question 1

1. Career education should be a program goal for our school.

Response Category	Both Schools Number of Respondents	%
In favor	204	68
Not in favor	60	20
Not sure	36	12
Total	300	100%

Data Summary for Question 5

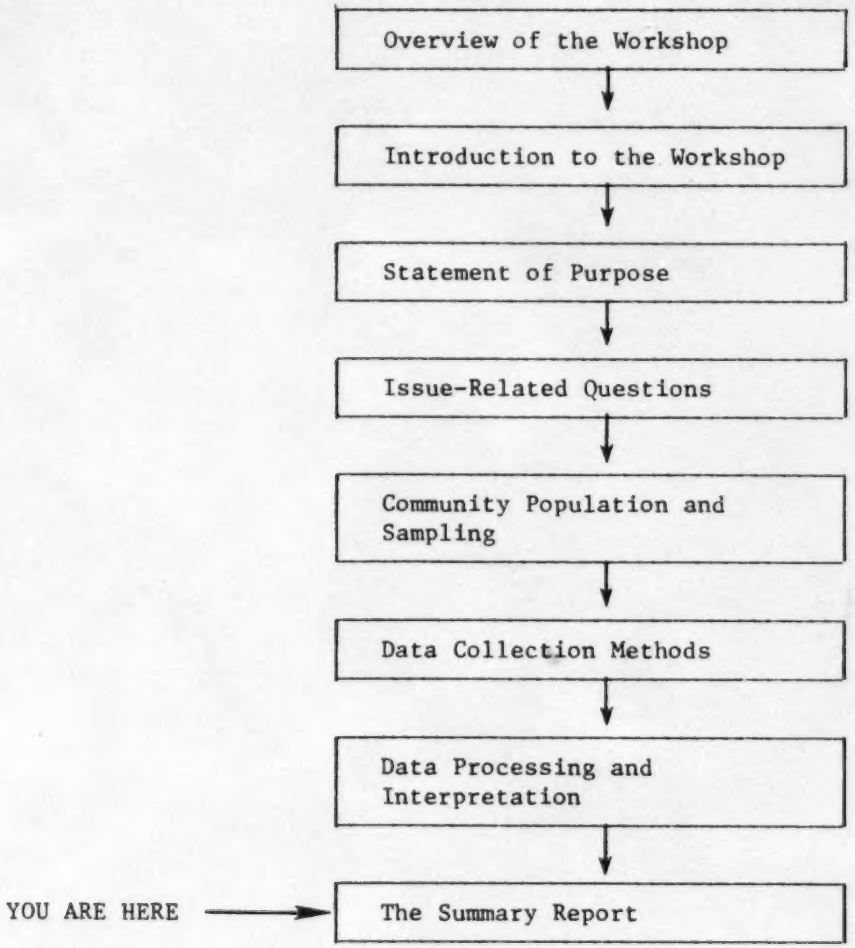
5. Name the one problem which you believe should receive the most attention in our school.

Response Cateogry	Both Schools Number of Respondents	%
Curriculum not relevant	53	18
Poor career guidance	30	10
Low student self esteem	68	23
No job placement service	20	7
Low achievement scores	40	13
Threats of teachers' strike	29	9
No response	60	20
Total	300	100%

Interpretation:

- In response to Question 1, a majority of the parents (68 percent) favored career education as a school program goal. In response to Question 5, a majority of parents (58 percent) cited problems related to career education (e.g., curriculum not relevant, poor career guidance, low student self esteem, no job placement service). Together, these responses suggest that the parents feel that the schools have a responsibility to teach career education and that the schools are not succeeding at present.

SEQUENCE OF ACTIVITIES



ACTIVITY

The Summary Report

The purpose of this activity is to describe the summary report.

The estimated time for conducting this activity is 50 minutes.

1. *Explain to participants the following information:*

   With the interpretation prepared for each question and/or each topic, the career education planning team is now ready to prepare a summary report. The basic material for this report has already been completed (i.e., the data summary sheet and the interpretation for each question). Basically, writing a report requires the preparation of an introduction, a brief description of the procedures followed in the survey, a description of the logical organization of the data and interpretation under appropriate headings, and the preparation of a summary of the results. For long reports, an abstract should be prepared.

2. *Divide participants into small groups of three or four individuals. Instruct each small group to consider what they would include in an introduction to a local opinion survey report in their community. Explain that the introduction should provide an overview of the survey, and that it should summarize the information set forth in the purpose statement. The introduction should include for example:*

   - The reasons why the survey was conducted.
   - The nature of the committees or individuals undertaking the study.
   - The major issues and topics of interest.
   - The community group from whom information was collected.

3. *When all small groups have finished their introduction, ask each to read their suggested introduction to the group at large.*

4. *Discuss with participants the type of information which should be included in the other sections of the report. Be sure the following points are included:*

- The procedure section describes how the survey was planned and conducted and highlights the key decisions made in carrying out the survey. It also includes the reasons why various decisions were made. Therefore, the procedure section describes:

  - the sampling technique
  - the data collection materials
  - the data collection methods
  - the statistical procedures for analyzing the data.

- The findings of the study contains tables used to describe the data, statistical results and interpretation of the findings as described in the previous activity, "Data Processing and Interpretation."

- The summary of the survey includes the general conclusions of the study, application of the results, recommendations for program changes, and recommendations for future studies. The summary should be written in language which addresses the main purposes of the study.

REFERENCES

Lazarsfeld, P. F. & Sieber, S. D. Organizing educational research. Englewood Cliffs, N.J.: Prentice Hall, 1964.

Smey, B. A. Career education: Concepts and Practices. Philadelphia, Pa.: Research for Better Schools, Inc. 1981.